DEPARTMENT OF THE ARMY HEADQUARTERS, WALTER REED ARMY MEDICAL CENTER 6900 Georgia Avenue, NW WASHINGTON, DC 20307-5001

WRAMC Regulation No. 40-82

20 June 2002

Medical Services MEDICATION ORDERING, ADMINISTRATION, AND DOCUMENTATION

- **1. History.** This regulation rescinds or supersedes WRAMC Regulation 40-49, Automatic Stop Orders, 3 May 93.
- **2. Applicability.** This regulation applies to all clinical activities within WRAMC to include outlying clinics. As such, all military, civilian and contract personnel with direct patient care responsibilities will conform to the enclosed policies and procedures. This regulation is not applicable to tenant activities on the installation.
- **3. Purpose.** To delineate the policies and procedures for medication ordering, administration and documentation of use at WRAMC. This regulation also covers medication distribution, control measures, prescribing restrictions and automatic stop orders.

4. References.

- a. Title 21 CFR, Drug Enforcement Administration, §1301.23 Exemption of Certain Military and Other Personnel, 1 Apr 99.
 - b. AR 40-3, Medical, Dental and Veterinary Care, 28 Jan 02.
- c. AR 40-7, Use of Investigational Drugs in Humans and of Schedule I Controlled Drug Substances, 4 Jan 91.
 - d. AR 40-48, Non-Physician Healthcare Providers, 7 Nov 00.
 - e. AR 40-66, Medical Records Administration and Health Care Documentation, 3 May 99.
 - f. AR 40-68, Quality Assurance Administration, 20 Dec 89.
 - g. AR 40-407, Nursing Records and Reports, 15 Aug 91.
 - h. AR 190-51. Security of Unclassified Army Property (Sensitive and Non-sensitive), 30 Sep 93.
- i. WRAMC Regulation 40-16, Support Processing of Cardiopulmonary Resuscitation Carts and Patient Transport Boxes, 16 Jul 99.
 - j. WRAMC Regulation 40-21, Drug-Nutrient Interactions, 22 Mar 99.
 - k. WRAMC Regulation 40-36, Adverse Drug Reaction Reporting System, 1 Jul 02.
 - I. WRAMC Regulation 40-68, Performance Improvement Program, 1 Jul 02
 - m. WRAMC Regulation 40-92, Hospital Committees, 1 Sep 99

^{*} This regulation supersedes WRAMC Regulation 40-82, 1 August 1999.

- n. WRAMC Infection Control Policy.
- o. Memorandum, DOD (HA), Subject: Tri-Service Pharmacy Policy Guidance, 1995.
- p. Field Manual 8-230, Medical Specialist.
- q. USACHPPM Technical Guide 149, Guidelines for Controlling Occupational Exposure to Hazardous Drugs, June 2001.
- r. Accreditation Manual for Hospitals from the Joint Commission on Accreditation of Healthcare Organizations (JCAHO).
- **5. Explanation of abbreviations and terms.** An explanation of the abbreviations and terms in this publication are in the glossary.

6. Further supplementation.

- a. As the proponent activity for this regulation, any supplementation will be staffed through the Department of Pharmacy.
- b. The Department of Nursing (DON) may expand and supplement this regulation as it pertains to their internal departmental documentation requirements.
- c. The Department of Pharmacy may expand and supplement this regulation, as it pertains to their internal departmental operating procedures.

7. Responsibilities.

- a. WRAMC's Pharmacy and Therapeutics Committee (PTC).
- (1) The PTC is the principal advisor to the Commander regarding the selection and safe use of medications at WRAMC. Details are provided in WRAMC Reg 40-92.
- (2) This committee is an interdisciplinary group that collaboratively makes recommendations and provides oversight functions. Input is derived from its working teams and subcommittees (Appendix A), the DOD Pharmacoeconomics Center (PEC), Command guidance, and the clinical practice expertise of its members.
- (3) In addition to formulating the medication use policy, the PTC is charged with the duty of objectively evaluating the merits of pharmaceutical agents (Appendix B) for inclusion into WRAMC's closed formulary system. The items selected will be consistent and in support of the medical mission of WRAMC.
 - b. The Deputy Commander Clinical Services (DCCS) will serve as the chairman of the PTC.
 - c. The C, Department of Pharmacy will:
 - (1) Maintain the agenda and serve as the recorder of the PTC.
 - (2) Provide automation and data collection to support the PTC.
 - (3) Act as the primary point of contact for providers making either a non-formulary Special Patient

Purchase (SPP) request or a request for a formulary modification.

- (4) Coordinate the implementation of the PTC's policy decisions.
- d. The Deputy Commander for Nursing (DCN) will ensure that all clinical nursing personnel are familiar with this regulation and enforce its contents.
- e. All clinical department and service chiefs will ensure their staff is knowledgeable about this regulation.
- f. Individual clinical practitioners are also expected to review the PTC's minutes in order to keep up to date on changes with the formulary, dispensing policy and information related to rational drug use.

8. Policy.

- a. Providers Ordering Medications.
- (1) Before any clinical practitioner working at WRAMC can order a medication, the provider's professional qualifications and scope of practice will be reviewed by the WRAMC Credentials Committee and approved by the Commander.
 - (a) The authorized categories of prescribers are described in AR 40-3 and AR 40-48.
- (b) The ordering, or prescribing, of a medication will be consistent with that practitioner's granted privileges and any local prescribing restrictions from the PTC.
- (c) Orders written by a medical student must be countersigned by the supervising physician before implemented by nursing personnel.
- (2) Providers will use the Order Entry option (Menu Path: CLN>ORE) in the Composite Health Care System (CHCS) as the primary means to order outpatient prescriptions for formulary items. The Clinical Information System (CIS) will be used for placing inpatient medication orders. Hard copy (Paper) orders will be used when either CHCS or CIS is unavailable.
- (a) When a paper outpatient prescription is used it must be legible and signed in ink by the prescriber. All paper prescriptions (DD Form 1289, DOD Prescription), or any locally approved equivalents, will bear the prescriber's name, rank, SSN, and branch of service (e.g. USA, USN, etc.). Civil Service providers will follow a similar format but will use their pay grade in lieu of a rank. Contract providers must use their personal DEA registration numbers to prescribe controlled substances. This information can either be stamped or hand-printed as long as the signature is in ink. Rubber stamps that depict a provider's signature are not authorized.
- (b) Prescriptions and inpatient orders will be dated on the day they were written. Any hand written inpatient medication orders should be "timed" using the 24-hour clock (military time).
- (c) If a patient is 12 years old or younger, WRAMC providers will annotate the child's age on any hard-copy outpatient prescription.
- (d) A clerk or a nurse may initiate a prescription; however, an authorized prescriber must sign it before it is processed.
 - (3) Verbal orders will be confined to true emergency situations. The registered nurse who accepts

the order must document it in CIS (or write it on a DA Form 4256). The individual transcribing the order will clearly state the provider's identity, and indicate that it is a verbal order.

- (4) Telephonic orders for inpatients will be kept to a minimum and will only be accepted by a registered nurse or pharmacist.
- (5) Both verbal and telephonic orders must be countersigned by the credentialed practitioner within 24 hours from the time of initiation.
- (6) Standing orders and protocol orders are acceptable. An overprint or copy of the standing orders or protocol must be signed by the prescriber. The prescriber will draw a single line through any order that does not apply and initials the lined-out portion.
- (7) The medication formulary at WRAMC is a closed system that is maintained through the PTC. The CHCS computer has the most current listing formulary information within the WRHCS. The formularies on CHCS also specify which dosage forms are available at each of the dispensing pharmacies (Menu Path: CLN>REF>DFR>DFOR). Provisions for obtaining non-formulary medications is covered in a separate paragraph of this regulation.
 - (8) Only authorized abbreviations will be used when prescribing medication.
- (9) When ordering a medication for an inpatient, or a short-stay unit patient, the prescriber must clearly indicate the dosing frequency. Using terms like "PRN" or "on-call" must specify under what conditions the drug is to be given.
- (10) Parenteral medication requests for home healthcare use refer to the managed care contractor for TRICARE Region 1.
 - (11) Veterinarian prescriptions will only be honored for military working animals.
 - (12) Self-Prescribing.
- (a) Prescribers will not write prescriptions for controlled substances or psychotropic agents for either themselves or their family members.
- (b) Interns and residents will not prescribe controlled substances or psychotropic agents for any staff physicians.
 - (13) Quantity and Duration Limits.
- (a) Unless a specific dispensing restriction is approved through the PTC, DOD Health Affairs (DOD HA), policy allows prescribers to order up to a 90-day supply of chronic medication.
 - (b) Refills on non-controlled medications will be honored up to one year.
- (c) No refills are permitted on medications, classified by the Drug Enforcement Agency (DEA) as a Schedule II substance.
- (d) Refills are permitted on medications, classified by the DEA as a Schedule III, IV or V substance. The duration will not exceed 6 months or 5 refills, whichever is less.
- (14) The metric system will be used to specify medication weights and volumes associated with the ordering, administering and documenting of drug therapy.

- b. WRAMC Providers Ordering a non-formulary medication for an Individual Patient.
- (1) In addition to the above requirements for ordering a formulary medication, prescribers may submit a Special Patient Purchase (SPP) request to order non-formulary items. SPPs are processed as an electronic request (Appendix C) through CHCS (Menu Path: MAIL>BBS>Pharmacy>PHRMSPP). If CHCS is unavailable, a DD Form 2081, New Drug Request, can be sent to the C, Department of Pharmacy.
- (a) Except for emergency situations, the requesting provider will first route the request through the appropriate department or service chief.
- (b) When the C, Department of Pharmacy and the respective service or department chief concurs, the request will be processed under an interim approval. Disputes will be referred to the DCCS for resolution.
- (c) The Pharmacy will keep the provider apprised on the status of their request and notify the patient when the medication is available.
- (d) A pharmacist from the Inpatient Pharmacy Service will review all non-formulary requests entered by the provider into CIS. The pharmacist will submit a special request for the duration of the inpatient stay, after confirming that alternatives are unacceptable.
- (2) Prescriptions from non-WRAMC providers will not be re-written or countersigned by any WRAMC provider as a means to facilitate the non-formulary purchase of an item to fill an "outside" prescription.
 - (3) Using RESTRICTED KEYS to expedite selected non-formulary purchases.
- (a) The PTC has recommended that a limited number of non-formulary medications be restricted by KEYS to specific clinical services.
- (b) Restricted Keys are a type of "security key" in CHCS. Those providers that have a particular Key can prescribe that non-formulary item through the "ORE" menu option in CHCS as an "expedited SPP".
 - (c) Providers without the required key need to submit an electronic SPP request to obtain the item.
 - (4) All non-formulary purchases made during the month will be reported at the next PTC meeting.
 - c. Formulary Addition, Deletion or Modification Requests.
- (1) Requests for formulary changes are only accepted from WRAMC providers. New drugs are added to the formulary and stocked in the Pharmacy after approval by the Commander. Each request for a new drug will be submitted on e-mail through the appropriate service chief to the C, Department of Pharmacy. The request will then be forwarded to the Medical Evaluation Subcommittee (MES) for action.
- (2) Requests for formulary additions are reviewed by the Ad-Hoc Formulary Review Subcommittee during the monthly meeting. Formulary change requests are often deferred until the month when that particular therapeutic drug class is reviewed. The review schedule is provided in Appendix D. Off-cycle consideration may be afforded to a newly marketed item that offers a significant therapeutic gain.

- d. Emergency Medication Requests.
 - (1) The emergency request procedures are in Appendix E.
- (2) Only the Department of Pharmacy may borrow or loan medication with outside activities. Reconciliation of all loans is done monthly. All pay-backs will occur in kind with the same product.
 - e. Radioactive Pharmaceuticals.
- (1) Radioactive pharmaceuticals within WRAMC will be under the direct control of the Nuclear Medicine Service and their Nuclear Pharmacist.
- (2) The Nuclear Medicine Service will establish separate guidelines for requesting any diagnostic or therapeutic procedures that require the use of a radioactive pharmaceutical.
 - f. Blood Derivatives managed by the Department of Pharmacy.
- (1) Immune serum globulin for intravenous use (IVIG) is requested from and prepared by the Inpatient Pharmacy Service pursuant to a valid SPP medication order and or concurrence from Allergy Immunology Service.
- (2) Albumin is requested on a patient-by-patient basis from the Inpatient Pharmacy Service for those activities that infrequently administer it. In higher use areas, albumin may be ordered and kept as floor stock with the concurrence of the C, Inpatient Pharmacy Service.
- (3) RhoGam* is requested from the Blood Bank. The Blood Bank will establish procedures for ordering, administering and documenting its use.
- g. Contrast media is considered a diagnostic medication and is therefore under the purview of the PTC for administrative control.
 - h. Distribution of Medications.
 - (1) General
- (a) Bulk supplies are typically maintained in patient care areas based on a four day resupply cycle. Excess stock of medication is returned to the Pharmacy. Specific procedures regarding management of "Bulk Drugs" are contained in Appendix F.
- (b) Under no circumstances will DON personnel dispense either bulk or unit dose medications to patients that are on leave or pass status.
- (c) Prior to a patient's departure, prescriptions for any pass, convalescent leave or discharge will be entered into CHCS by the provider. At the time of departure, the patient (or their agent) will take the patient's military identification card to the Outpatient Pharmacy. The pharmacy will dispense the medication and answer any pharmacy-related questions. When the Outpatient Service is not open, the Inpatient Pharmacy Service will attend to the patient's needs.
- (d) Needles and syringes will not be dispensed by nurses for use outside the hospital. Except for insulin syringes, all other needles and syringes (for home-use are requested through the Material Distribution Branch (MDB) via a prescription. Insulin syringes are stocked in the Pharmacy and ordered via CHCS.

(2) Inpatients

- (a) Until the conversion to OmniCell is complete, inpatient units will continue to maximize the use of the legacy unit-dose distribution system. They will administer the medication directly from their medication cart. Medications will be left in their sealed identifiable form until just prior to administration. If possible the medication will be opened from its unit-dose packaging in the presence of the patient. Appendix G has detailed procedures regarding the use of legacy unit-dose system.
- (b) Ward stock items will be kept to a minimum. Activity wanting to modify their ward stockage list, must receive the concurrence of the C, Inpatient Pharmacy Service.
- (c) Until an area is fielded with their OmniCell medication cabinet, all controlled substances will be transferred to the nursing units IAW AR 40-2, Chapter 8.
 - (3) Outpatients.
- (a) Outpatient Pharmacy Service will fill prescriptions for eligible beneficiaries subject to the PTC's dispensing policy.
- (b) All medications, including over-the-counter items, dispensed from the Outpatient Pharmacy Service require a prescription.
 - i. Control of Medication within the Facility.
- (1) Except for ward stock items, the Department of Pharmacy will not release any medication without a valid medication order.
- (2) Delegations of Authority cards (DA Form 1687) are initiated by the supervisors of those activities that draw bulk supplies from the Pharmacy. The cards will remain valid for one year, unless rescinded or superceded.
- (3) The C, Inpatient Pharmacy Service reviews all requests for ward stockage screening inappropriate requests. After an item is added to an activity's list, the Pharmacy Supply & Support Service will monitor activity.
- (4) Medication in either an inpatient or clinic setting is stored in a locked cart, cabinet or room. These areas remain locked when not in use.
 - (a) Access to these areas is restricted. Supervisors maintain current access rosters.
- (b) Medication keys are kept on a separate key ring (apart from all other key rings) and carried only by those staff members on the approved access roster. Specific procedures are contained in Appendix
- (5) Medication requiring refrigeration is placed in a "medication only" refrigerator. A daily temperature log will be maintained to ensure that the temperature remains between 2-8 degrees C. If the temperature is outside of this range, activities will immediately notify either the Pharmacy Support Service or the Inpatient Pharmacy Service and ask for immediate assistance.
- (6) Surveillance of all expiration dates is an activity responsibility. Pharmacy's periodic liaison visits serves as a double check of the activity's surveillance program for medication. Pharmacy assumes expiration date management for those medications maintained in an OmniCell drug cabinet. Expired medication will be returned to the Pharmacy for disposition.
 - (7) Medication in Vials.

- (a) The dating of a multiple dose vial when it is initially entered is not required. Using aseptic technique, multi-dose vials have a negligible risk of contamination. A vial will be discarded if it has reached the manufacturer's expiration date; is suspected of being contaminated (by visual inspection of the contents and the rubber stopper); or is empty.
 - (b) Vials without preservatives are for single-use only and discarded after their first use.
 - (c) Tops of all vials are wiped with a 70% isopropyl alcohol swab prior to each use.
 - (8) Medication in Ampoules.
 - (a) Glass ampoules are wiped with a 70% isopropyl alcohol swab prior to their use.
- (b) Use a 5-micron filter needle to draw up medication. Dispose the filter needle of prior to administering the medication.
- (9) Medication bottles and containers with torn, soiled or missing labels will be returned to the Pharmacy. Non-pharmacy personnel will not re-label medication containers.
- (10) Medications used on research protocols are prescribed by the registered protocol provider. The Research Protocol Pharmacist will assist in preparing, administering or monitoring the effects of the medication.
- (11) WRAMC providers who prescribe controlled substances for a patient are prohibited from acting as a patient's agent to pick them up.
- (12) Clinics performing sedation with controlled medications will maintain the necessary medication as floor stock. Activities that are unable to meet the physical security storage requirements of AR 190-51 will order the medications as an outpatient prescription on a patient by patient basis. The prescription must be hand-written to avoid CHCS sending it to the wrong dispensing pharmacy. Immediately before the scheduled clinic procedure, the clinic's nurse (or designee) will bring a hand-written prescription along with the patient's identification card to the Inpatient Pharmacy on the 4th floor Inpatient Pharmacy for dispensing. The Pharmacy will process it as a prescription and dispense it. Opened residual medication will be discarded. A clinic record of the discarded medication will be maintained and will include a signature from a witness. Unopened residual medication will be turned into the Pharmacy and processed as a patient return. Medication ordered for one patient will not be used on another and no unused controlled substances will remain in the clinic.
- (13) Medications will not be left at the bedside unless the practitioner writes an individual order allowing self-medication.
- (14) All needles and syringes will be secured in a locked location and will only be accessible to those individuals authorized to administer medications or restock supplies.
 - (15) The control of emergency medications within the facility is addressed in WRAMC Reg 40-16.
- (16) The accountability procedures for controlled substances are addressed in a separate regulation.
 - j. Administration of Medication.
 - (1) WRAMC personnel will not administer medication to a patient without a valid order from a

clinical practitioner with privileges at WRAMC.

- (a) The caregiver responsible for administering the medication will verify the patient's allergy status. In addition to reviewing the medical records, when a new medication is added to a patient's therapy, the patient will be asked directly about their allergies.
- (b) Staff members will review the patient's overall situation to ensure no contraindication exists for the prescribed therapy before administration.
- (2) The administration frequency (timing between doses) must be clearly indicated by the prescriber. The use of "PRN" or "on-call" must be qualified.
- (3) Unless an order specifies otherwise, the timing of the administration will default to the following standard dosing times:

QD: 1000 hours

BID or Q12H: 1000-2200 hours TID or Q8H: 0600-1400-2200 hours QID: 1000-1400-1800-2200 hours Q6H: 0600-1200-1800-2400 hours

- (a) Medication administration at WRAMC will be done by medical personnel working within their scope of practice. Appendix I lists those personnel by category that are authorized to administer medication at WRAMC.
- (4) Before a WRAMC staff member administers a medication to a patient, they must know the following information about the medication:
 - (a) Mechanism of action
 - (b) Indications for use.
 - (c) Appropriate dose.
 - (d) Administration rate (if applicable).
 - (e) Adverse reaction profile.
 - (f) Drug-nutrient interactions (Refer to WRAMC Reg 40-21).
- (5) If a medication is altered after it is received from the Department of Pharmacy, the individual performing the alteration is responsible for its correct administration.
- (6) Personnel permitted to administer medication will check for the following five "Rights" of medication administration. This check will be done at the time of administration.
 - (a) Right Patient
 - (b) Right Drug
 - (c) Right Dose

- (d) Right Time
- (e) Right Route
- (7) Nursing personnel assigned to WRAMC, must pass the Diagnostic Medication Test before they are permitted to administer medication.
- (a) The test is designed to assure basic proficiency in dosage calculations, principles of drug administration and effects of commonly used drugs. All newly assigned Army Nurse Corps officers, RNs, 91WM6 and LPNs are tested. DON administers the test and maintains the database.
- (b) The results of the test are reported to the Head Nurse/Wardmaster as part of the initial skill assessment. If a score of less than 100% is achieved, a learning contract is established as part of the unit based competency assessment. Further assistance or additional training is made available at the discretion of the Head Nurse.
- (c) IV fluids and medications added to IVs will be administered by medication certified individuals. These individuals must be knowledgeable about: the actions of the fluids and medications; the rate at which these substances should be infused; the signs and symptoms of adverse reactions; incompatibility of solutions; and the corrective measures necessary in the event of a problem.
- (8) Registered nurses may administer intravenous push (IVP) medication. WRAMC personnel who are not specifically authorized to give IVP medications will only do so under truly life-threatening situations when a physician is in attendance but unable to administer the medication.
- (9) The patient will be identified by checking the identification band and asking the patient to state both their first and last name.
- (10) Nurses and other caregivers should talk with their patients to ascertain that they understand the use of their medications and any special precautions or observations if warranted. When a patient questions whether a particular drug should be administered, the nurse or other caregiver will listen to the patient and answer their questions. A double check of the provider's order and the drug product itself will be done if there is any doubt about a possible medication error.
- (11) Self-Administered Medications: These medications will be administered IAW WRAMC Reg 40-20, "Self Medication Program."
 - (12) Missing and late doses.
- (a) When a patient medication is missing, the nurse will report it to the Inpatient Pharmacy Service for corrective action. DON personnel will monitor the patient's unit-dose cassette for adequate number of doses of oral medications until the next cart exchange.
- (b) Medication should be administered to the patient as close to the assigned administration time as possible. Categorizing a dose as "late" or "early" depends upon the dosing schedule of the medication. Appendix J lists the acceptable grace period times during which a medication can be administered without generating a report of Unusual Occurrence.
- (13) Special procedures for administering chemotherapeutic/hazardous agents are provided in Appendix K.

k. Documentation.

- (1) The administration of medications by any WRAMC staff member, will be documented in the patient's medical record, to include medication name, dose, route and time.
- (2) When a STAT or PRN medication is administered, a progress note will specify why it was administered. Shortly after the expected onset of action, an assessment of the medication's affect will be performed and documented.
- (3) All medications administered by a caregiver to a patient will be documented by that individual.
- (a) For Inpatients, the administered dose will be recorded on the patient's DA Form 4678, Therapeutic Documentation Care Plan (Medication), or its electronic equivalent (CIS). The chart entry will be done immediately after the medication is administered. This will not be documented ahead of time.
- (b) For Short Stay Unit patients, medication administration documentation will be on a DA Form 4700, Supplemental Patient Data Sheet.
- (c) For outpatients, documentation of medication administration is charted on the appropriate form (either a DA Form 4678, SF 510, or SF 600) by the person who administered the medication.
- (d) Medication administered by a physician must have a written order completed immediately after the medication is administered. The RN who countersigns the order and/or witness the administration by a physician will record the medication name, dose and route in CIS (or on the appropriate administration form for that clinical area).
- (e) If an inpatient refuses to take a prescribed medication, the patient's provider, will be immediately notified by the patient's nurse. The nurse will document the refusal both in the patient's medication administration record and in their progress note (SF 509 or an electronic equivalent).
- (f) Documenting and reporting adverse medication reactions is covered in WRAMC Reg 40-36.

I. Prescribing Restrictions.

- (1) The PTC makes recommendations to the hospital Commander when administrative prescribing restrictions are warranted. When restrictions are approved by the Commander, they are published in the monthly PTC minutes. After a restriction is approved, the Department of Pharmacy makes the necessary CHCS changes to implement the restriction.
 - (2) Prescribing a restricted medication is covered in paragraph 8b.
 - m. Holding or Stopping an Ordered Medication.
 - (1) Automatic Stop Orders.
- (a) The classes of medication with inpatient automatic stop orders at WRAMC are listed in Appendix L. This listing will be periodically reviewed by the PTC. Changes to this list will be published in the PTC minutes.

medication orders are automatically cancelled and must be reordered.

- (d) Patients absent from the hospital for more than 72 hours must have new orders.
- (e) In all the above cases, the patient's nurse will inform the covering physician before stopping the medication.
 - (2) Holding a dose.
- (a) The administration of a drug should be held if a staff member detects a potentially serious adverse medication reaction and the prescriber has not provided definitive instructions to address the consequences of the adverse event.
- (b) The staff member responsible for administering the medication will immediately contact the prescriber, or the covering provider, to receive guidance. WRAMC Regulation 40-36 should be consulted for submitting an Adverse Drug Reaction Report. Authority to resume the treatment resides with the prescriber or their designated covering provider.
- (3) The administration of a drug can be held for a finite period of time for a specific measurable event by writing a conditional order. For example an order could state "digoxin 0.125mg po every morning; hold the daily dose if the pulse rate is less than 50 beats/minute at 0800". Great care will be used to avoid ambiguity when writing a conditional order.
- (4) Placing medication order "on hold' is often confusing. To prevent misinterpretation, the clinical practitioner should consider using a discontinuation order. If the medication is subsequently needed, a separate "new" medication order will resume the patient's therapy.
 - n. Parenteral Medications.
 - (1) Prepared by the Pharmacy.
 - (a) The order is reviewed and checked by a pharmacist.
- (b) Medication preparation is done in a laminar flow hood to minimize the risk of product contamination during manipulation.
 - (2) Prepared outside the Pharmacy.
 - (a) Whenever possible the Inpatient Pharmacy Service prepares Parenteral medications.
 - (3) Special Devices.
- (a) In-line filtering of selected intravenous medications is required. A listing of those medications is contained in Appendix M.
- (b) Whenever an infusion pump, syringe pump or other type of mechanical device is used, the staff member responsible for administering the drug will understand the device's operation, potential for failure and how to correct for any system failure.
- (4) Whenever possible, needle-less transferring and connecting devices will be used to lessen the chance of needle stick accidents.

(5) When standard drug concentrations or dosage charts are not available, dosage calculations, flow rates or other mathematical calculations done by a nurse should be checked by another nurse.

o. Order Response Times.

- (1) STAT / Emergent This order dictates a life-threatening situation and commands immediate response and execution. Prescribed medications are given in a potential loss of life, limb or eyesight emergency in which guick administration is needed.
- (2) ASAP (as soon as possible) / Urgent This order represents a priority need and requires a prompt response that takes precedence over routine orders. If the medication is on hand at WRAMC, administration should occur within 60 minutes. Prescribed medications require prompt administration to prevent acute attacks or exacerbation of symptoms, which in the clinical judgment of the Registered Nurse necessitates bypassing the pharmacy review. Examples of these drugs are used for asthma, nausea/vomiting, severe headache, pain > 4 on a scale of 10 being the worst and fever. These drugs are usually ordered on a PRN schedule.
- (3) Routine This order requires no "special" response and should be acted on according to prevailing schedules.

p. Special Considerations.

- (1) Investigational drug use is covered in AR 40-7. Specific procedures for a given agent will be covered in its clinical protocol.
- (2) The self-administration of medication by WRAMC inpatients requires accountability and documentation on the medication administration record in the same manner as if a nurse administered the medication. Specific exceptions and other requirements are covered in WRAMC Reg 40-20.
- (3) Any medication needed for a patient discharge, transfer, pass or convalescent leave will come from the Department of Pharmacy. Nursing personnel will not dispense medication from any bulk containers or unit-dose cassettes for a patient to take out of the hospital.
 - (4) Refusal to follow a medication order.
- (a) If a nurse believes that a medication cannot be administered because of the nature of the order, or because of a lack of knowledge or ability to execute the order as intended, the nurse will contact the prescriber for clarification. If the nurse is unable to resolve the problem with the prescriber, the nursing supervisor will be notified.
- (b) Follow-up action will be addressed on a case-by-case basis by the clinical practitioner and nursing supervisor.

APPENDIX A

PHARMACY & THERAPEUTICS COMMITTEE (PTC) — SUBCOMMITTEE AND TEAMS

- A-1. The functions of the PTC committee are listed in WRAMC Reg 40-92.
- A-2. The following Subcommittees and Teams are working groups within the PTC that address specific functions and requirements:
- A. Medical Evaluation Subcommittee Makes formulary recommendations & evaluates rational drug therapy.
- a. Purpose: To provide a multi-faceted approach to improving medication use in a cost-effective manner, following a performance improvement model that focuses on evaluating and improving medication-use processes with the goal of optimal patient outcomes at the lowest cost. Medication evaluation will be applied to a medication or therapeutic class, disease or condition, a medication-use process (prescribing, preparing and dispensing, administering, and monitoring), or specific outcomes.
 - b. Composition:

Chairperson (Appointed by DCCS)
Representative, General Internal Medicine Service
Representative, Department of Medicine
Representative, OB/GYN or Pediatrics
Representative, Pharmacy (Recorder and Coordinator)
Representative, Service responsible for item(s) under review

- c. Functions and Responsibilities:
 - (1) To provide ad hoc formulary review.
- (2) To provide drug utilization and evaluation in order to promote optimal medication therapy, safety, and effectiveness.
 - (3) Establish interdisciplinary consensus on medication-use-processes.
 - (4) Stimulate improvements in medication-use processes.
- (5) To provide assessment of restricted drug guidelines and evaluation of medications on the restricted drug list.
 - (6) Minimize cost of medication therapy through pharmacoeconomic studies.
- (7) Identify areas in which further information and education for health care professionals may be needed.
 - d. Frequency of Meetings: Monthly
- B. Nutritional Support Team Addresses issues evolving therapeutic nutrition.
- C. Product Selection Team Addresses product size and manufacturer issues, recommendations based on members from the Department of Pharmacy, based on current utilization / prescribing trends.
- D. Sole Provider Subcommittee (Adhoc) Monitors patients with drug seeking behavior.

APPENDIX B

FORMULARY EVALUATION CRITERIA

- B-1. Requests for addition of a medication are considered on the request of any staff provider. WRHCS has a limited annual pharmacy budget. It is incumbent upon our institutional decision makers to assure that additions to the open formulary provide "added value" to the health of our beneficiary population. The PTC will use *cost-effectiveness* principles to guide decision making, based on the ratio of incremental cost for an incremental health care benefit.
- a. Quality Evidence to the PTC needs to be published peer-reviewed journals; from high quality randomized controlled trials or high quality observational studies with adequate multivariate control for confounding variables. Anecdotal evidence or provider experience is not a justification.
- b. Outcome Outcomes appropriate for cost-effectiveness include: survival (life-years), quality of life or functional status/disability.
- c. Conventional Benchmark for Cost-Effectiveness Criterion is considered cost-effectiveness is any incremental cost per incremental health benefit (i.e. renal dialysis).
- d. Conflicts of Interest Disclosure Reveal all potential conflicts of interest related to the pharmaceutical at hand. To include grant money obtained from a pharmaceutical company, personal investments in drug companies, and monies received for lectures from drug companies.
- B-2. Open Formulary Addition Procedure-
- a. Requests for formulary addition maybe submitted by CHCS or Outlook E-mail through the Service/Department Chief to the Chief of Pharmacy.
- (1) The requested drug should be clearly described, in "layperson's" terms, identity, use, outcomes impacts, and alternative agents currently used for the same disease state.
 - (2) The request should contain a justification why the drug should be added to the formulary.
- (3) The requestor must submit published, clinical studies supporting significant medical benefit of the new drug over current formulary drugs. A literature review of cost-effectiveness data should be included in this process, if none are available, please state so.
- b. Requestors must declare all potential conflicts of interest (see previous section on conflict of interest), and must be present at the MES meeting which reviews the request. The requesting service must be represented at the MES meeting which reviews the drug.
- c. The Medical Evaluation Subcommittee (MES; formerly the Ad Hoc Formulary Review and Drug Utilization and Evaluation Subcommittees combined) reviews all requests for addition of a medication to the formulary.
- d. The MES committee members cast a confidential vote on the decision of whether to place the requested drug on open formulary.
 - e. The MES reports their recommendations and rationale to the PTC.
 - f. Final approval is the Hospital Commander.

Appendix B (Continued)

- B-3. Restricted Drug Guideline
 - a. Drugs delegated to be prescribed with restrictions are ones which:
 - (1) Have a limited therapeutic niche.
- (2) Are not appropriate for open formulary due to a lack of sufficient cost-effectiveness data, rather limited to a specialty service.
- (3) May be appropriately prescribed at a rate by some services which would be burdensome to the SPP process. Military and civilian prescriptions are accepted.
 - b. The MES is responsible for evaluating the appropriateness of use by providers with restricted drugs.
- c. The individual services with restricted drugs are responsible for the valid collection of useful data to assess appropriateness.

APPENDIX C

SPECIAL PRODUCT PURCHASE (SPP) TEMPLATE FROM THE CHCS BULLETIN BOARD

WALTER REED AMC Bulletin Board System (subtopics)

Choose from:

DRUGRXN Adverse Drug Rxn Template

PHRMSPP NON-FORMULARY DRUG REQUEST TEMPLATE

VAXRXN Template for VAERS Reports

VIAGRARX VIAGRA PRESCRIPTION REQUEST

Select SUBTOPICS: PHARMSPP

NON-FORMULARY DRUG REQUEST TEMPLATE

DEVICE: NTA Template

WALTER REED AMC

15 Apr 2002@1409 Page: 1

Topic: PHARMACY

Subtopic: PHRMSPP

Last Edited: 07 Dec 2001@1429

If it is medically necessary to prescribe a non-formulary medication, you must complete the information below and forward the E-mail request through CHCS to your service chief and the G.WR SPP PHARMACY mail group.

- 1. Patient's Name:
- 2. Family member prefix (FMP) and sponsor's social security number (SSN)
- 3. Requesting Location (MEPRS Code)
- 4. Generic Name of Drug
- 5. Brand Name of Drug
- 6. Dosage
- 7. Quantity
- 8. Directions for Use (Sig)
- 9. Refill Information
- 10. Indication for Use
- 11. Formulary Drugs Used Previously
- 12. Patient's Phone Number (Work and/or Home)
- 13. Status of request: Routine or Urgent (if urgent provide justification)

(An urgent request includes a medication needed within 24 hours to treat a life-threatening illness. Urgent requests will not require prior service chief approval, but pharmacy approval will be necessary)

PROVIDERS:

After the SPP template is completed, please forward to the chief of your respective service for approval and to G.WR SPP PHARMACY for approval by the Department of Pharmacy. The prescription will be entered into CHCS by the Pharmacy Supply staff, you do not need to enter an order in CHCS. When the medication is available for pick up, the Pharmacy staff will contact the patient.

For renewals of a previously approved SPP, you may issue a written prescription (DD Form 1289). The following must be written on the face of the prescription: "Previously approved SPP". The prescription should be presented to the Pharmacy Supply window.

- C-1. Use the following CHCS Menu Path: MAIL>BBS>PHARMACY>PHARMSPP
- C-2. Either copy and paste the template into a new CHCS e-mail message or just provide the requested information in the same order as the template. The Pharmacy will provide cost data.
- C-3 It is helpful if you include either the patient's name of the name of the medication in the title of the e-mail.
- C-4. When you have answered the above questions, send the message to the G.WR_PHARMACY SPP mail group and a copy to either your service or department chief.

APPENDIX D

WALTER REED HEALTH CARE SYSTEM FORMULARY REVIEW SCHEDULE

Review Period	Category	Description
January	12:04	Cholinergic agents
,	12:12	Adrenergic agents
	12:16	Adrenergic blocking agents Miscellaneous
	12:92	Autonomic drugs
	24:04	Cardiac drugs
	24:08	Antilpemic agents
	24:12	Hypotensive agents
	24:16	Sclerosing agents
February	34:00	Dental agents
	40:00	Electrolytic, caloric, & water balance
	88:00	Vitamins
March	12:08.08	Antimuscarinic/antispasmodic
	44:00	Enzymes
	56:00	Gastrointestinal
	86:00	Smooth muscle relaxants
A m mil	32:00	Contraceptives
April	68:00 76:00	Hormones and synthetic substitutes
	08:00	Oxytoxics Anti-infectives
May	80:00	Serums, toxoids and vaccines
iviay	38:00	Disinfectants
June	72:00	Local anesthetics
dano	84:00	Skin and mucous membrane preparations
	36:00	Diagnostic agents (contrast agents)
July	78:00	Radioactive agents
,	92:00	Unclassified therapeutic agents
	94:00	Unclassified devices
	96:00	Pharmaceutical aids
	99:00	Antidotes
	28:12	Anticonvulsants
August	28:16	Psychotherapeutic agents
	28:20	Anxiolytics, sedatives and hypnotics
	28:24	Antimanic agents
	28:28	Respiratory and cerebral stimulants
	12:20	Smooth muscle relaxants
September	28:04	General anesthetics
	28:08	Analgesics and antipyretics
	28:10	Opiate antagonists various Alzheimer's Disease agents &
	04:00	AntiParkinson agents
Octobor	04:00 48:00	Antihistamines Antitussives, expectorants & mucolytic
October	52:00	Nose and throat preparations
	68:04	Inhaled corticosteroids
	12:08.08	Inhaled anticholinergics
	08:00	Topical antibiotics (EENT related)
	10:00	Antineoplastic agents
November	16:00	Blood derivatives
	20:00	Blood formation and coagulation drugs
	60:00	Gold compounds
	64:00	Heavy metal antagonists
		- -

APPENDIX E

EMERGENCY MEDICATION REQUESTS

- E-1. The following procedures pertain to either obtaining a non-formulary item or when sufficient quantities of a formulary item are not on-hand for an emergency situation.
 - a. Inform the C, Department of Pharmacy of the need to make an emergency procurement.
- b. After normal duty hours the C, Department of Pharmacy can be contacted through the Inpatient Pharmacy Service.
- E-2. The information below will be required to complete the request:
 - a. Medication, strength, dosage form, quantity required and expected duration of therapy.
 - b. Patient's name, location and sponsor's SSN.
 - c. The patient's diagnosis.
 - d. The time frame in which the medication is required.
 - e. Alternatives to the requested medication (if any).
- E-3. The C, Pharmacy Supply & Support Service or a representative from that service will recommend the source of supply and appropriate priority for the request.
- a. High priority requests ("03" or "06") to either the Medical Materiel Branch or the Directorate of Contracting will be validated by the C, Department of Pharmacy or by one of the Department of Pharmacy's service chiefs.
- b. High priority requests submitted to WRAMCS's designated prime vendor account will be validated by the Chief or NCOIC, Pharmacy Supply & Support Service.

APPENDIX F

BULK DRUG MANAGEMENT

- F-1. Ward Stockage Lists / Bulk Medication Orders (BDO's) will be submitted from patient care areas, not on the Point-of-Use medication delivery system (OmniCell®), or for items not suitable for dispensing via the unit dose delivery system. Items approved by both the patient care area supervisor and the Pharmacy Support Service will be listed on that activity's CHCS ward stockage list. All other medications will be supplied through the Unit Dose System.
- F-2. Inpatient Ward Stockage Lists / (BDO's) will be sent on Monday and Thursday before 0800. BDOs will be ready for pickup on Tuesday and Friday. Emergency orders can be picked up the same day after telephonic coordination with the Pharmacy Support Service. Wards will order sufficient quantities of drugs on Thursday to last through the weekend.
- F-3. Bulk Drug Orders from clinics will be sent before 0800 on Tuesday and Thursday. They will be ready for pickup on Wednesday and Friday. Emergency orders can be picked up the same day after a telephonic coordination with the Pharmacy Support Service.
- F-4. Bulk Drugs for Operating Room Omnicells will be delivered Monday, Wednesday & Friday. Anesthesia and PACU Omnicells medications will be delivered Monday through Friday.
- F-5. On weekends/holidays or after normal duty hours, emergency drug orders will be filled by the Inpatient Pharmacy Service.
- F-6. The following menu path in CHCS is used to place BDOs:
 - a. Type **BIM** (to access the bulk issue menu); press RETURN key.
 - b. Type ESI (enter stock issue); press RETURN key.
 - c. Type O (outpatient); press RETURN key.
 - d. Type APHARM (then select #7) (outpatient site name); press RETURN key.
 - e. Type your CHCS printer's location/name (i.e., WD65); press RETURN key.
 - f. Type your ward or clinic name (i.e. WD65); press RETURN key.

Your authorized ward/clinic stock list will appear. To select an item, use the UP or DOWN arrow keys to get to that item. Press the SELECT key on CHCS VTs' or the END key on CPUs'. You will be given the option to enter a quantity. Press RETURN to go to the next item. When you have finished entering your order, an additional RETURN will show you the order on the screen. Double check it for dosage form and quantities requested. When you are finished:

- a. Pull your copy from your printer.
- b. Select SII (Stock Issue Inquiry) from the BIM menu.
- c. Type Issue Number (at top center of form).
- d. Type **SUPT** (Support Pharmacy Printer).

You may hang your copy in the medication room to document the order. This will in turn be used to verify the order upon receipt to the ward/clinic. A copy of the order was also printed out in the Support Pharmacy. Questions regarding the CHCS order process and specific ward stockage may be directed to 782-4708 / 4707 / 4702 during normal duty hours.

APPENDIX G

UNIT-DOSE DISTRIBUTION SYSTEM

G-1. Admission of new patients - Newly admitted or transferred patients will have admission or transfer orders placed in CIS. The receiving ward staff will activate the admission or transfer order for CHCS. The Inpatient Pharmacy will then transcribe the information from CIS into CHCS.

G-2. Ordering (CHCS)

- a. A routine medication order is initiated when the practitioner enters the medication into CIS. The order is automatically sent to the appropriate Pharmacy.
- b. STAT medication orders are also placed into CIS and will automatically go to the appropriate Pharmacy.
- G-3. Pharmacy Notification.
- a. To insure efficient and accurate utilization of drug distribution, it is imperative that the following changes be reported to the Pharmacy by phone or CIS:
 - (1) Changes in dose
 - (2) Discontinued drugs
 - (3) New Orders
 - (4) Patient transfers and bed changes
 - (5) Discharges or deaths
 - (6) Adverse drug reactions
 - (7) Missing medications
 - (8) Wasted or contaminated medications that must be replaced prior to the next cart change

G-4. Medication Delivery

- Medication cassettes will be delivered to the floor and exchanged every 24 hours.
- b. Supplementary deliveries are made as required by pharmacy technician every other (even) hour (0800 to 2200 hours). If a nursing staff member comes to the Pharmacy to pick up an item, the Pharmacy will verify the order before dispensing.
- c. Items, such as creams, ointments and ear/eye drops, are not available in unit dose packaging. These medications will be marked with the patient's name for placement on the medication cart. Pharmacy should be notified by phone on an as needed basis when these items need to be replaced.

G-5. Medication Administration

- a. Each cassette drawer is labeled with the patient's room number and name.
- b. At scheduled medication hours the nurse will refer to CIS or the Medication Therapeutic Documentation Care Plan (DA 4678) of the patient, and check the name and bed number against the name on the identification band of the patient in that bed.
 - c. Medications will be administered to the patient directly from the cassette drawers.

APPENDIX H

MEDICATION KEYS

- H-1. The medication keys will remain in the possession of a professional nurse or a qualified 91W/M6, LPN who will transfer the keys to his/her successor at each shift change.
- H-2. Each qualified individual who counts controlled substances and/or receives the set of medication keys is responsible for the security and control of medications (including controlled substances), the contents of the medication cart, medication in refrigerator, the narcotics in the narcotics cabinet and the medications in the medication room.
- H-3. The medication keys will not be kept on the same key ring with other keys.
- H-4. A separate DA Form 5513-R, Key Control Register and Inventory, dated March 1986, will be used to assure an intact chain of custody for each set of medication keys at the change of shifts.
- H-5. Accounting for the set of keys will be conducted in the same manner as counting and verification of the controlled substances between the on-coming and out-going nursing personnel who has been/will be responsible for the administration of medications.
- H-6. Signing the Controlled Substance Inventory, DA Form 3949-1, does not preclude the requirement to sign for each set of keys on a separate DA Form 5513-R.
- H-7. In the event a key is lost or stolen, notify the nursing supervisor. If the key cannot be found, the nursing supervisor will contact the Provost Marshal's Office at 782-7512/7513 and report the loss. It is not necessary to contact the AOD desk.

APPENDIX I

PERSONNEL AUTHORIZED TO ADMINISTER MEDICATIONS

- I-1. Individually credentialed providers (e.g. physicians, dentists, physician assistants, nurse practitioner, etc.)
- 1-2. Department of Nursing personnel IAW their approved scope of practice.
- I-3. Physical Therapists.
- I-4. Pharmacists.
- I-5. Cardiac catheterization technicians.
- I-6. Diagnostic radiology (CT & MRI) technicians.
- I-7. Ear, nose and throat technicians.
- I-8. Eye technicians (Ophthalmology & Optometry).
- I-9. Nuclear medicine technicians.
- I-10. Oncology pharmacy technicians.
- I-11. Pulmonary function technicians.
- I-12. Allergy technicians.

APPENDIX K

HAZARDOUS DRUG (Cytotoxic Agents) ADMINISTRATION

K-1. Protective Clothing.

- a. Surgical latex gloves (not poly-vinyl chloride gloves) are required to be worn when administering hazardous drugs by the following routes: IM, SQ, IVP, IVPB and continuous infusion therapy. Either sterile or non-sterile gloves may be used. Latex gloves decrease the chance of skin absorption of hazardous drugs. Additionally, hands must be washed before and after gloving. Gloves are not a substitute for good hand washing.
 - b. Gowns are optional.

K-2. Technique

- a. When administering hazardous drugs by IV infusion, don protective gloves before spiking the hazardous drugs-filled IV containers.
- b. When administering IM, SQ or IVP hazardous drugs, do not prime the drug through the needle. While wearing gloves, simply attach medication filled syringe to the appropriate size needle and administer the medication.
- c. Place plastic backed gauze (i.e. "chux") under the syringe and tubing connection when administering IVP hazardous drugs.
- d. Tubing will be primed into plastic backed gauze (e.g. "chux" or gauze in an emesis basin or plastic cup) while wearing surgical latex gloves. The "chux" gauze and basin or cup is then disposed of in a rigid sharps container.
- e. To avoid eye injuries, do not disconnect the IV bag and tubing containing hazardous drugs. Use new IV tubing with each subsequent bag of hazardous drug that is needed.
 - f. Wear gloves when discontinuing IV hazardous drug.
- g. Leuer-lock connections are preferred for all hazardous drugs connections (tubing, syringes, etc.). If leuer-lock connections are not available, tape connections securely.

K-3. Disposal of Equipment.

- a. Surgical latex gloves will be worn while disposing hazardous drug administration equipment. Gowns are optional.
- b. All disposable material contaminated with hazardous drugs will be placed in a rigid, puncture resistant container labeled "biohazard" for disposal.
 - c. IVPB and IV infusion: Dispose of used IV bag, tubing and needle as a unit.
- K-4. Disposal of Contaminated Patient Waste.
- a. Patient waste is considered contaminated with cytotoxins for 48 hours post hazardous drug administration.

Appendix K (Continued)

- b. Contaminated patient waste may be flushed down the toilet.
- c. Linens and clothing saturated with contaminated patient waste will be placed in a plastic bag prior to being placed in a laundry bag.
- K-5. Skin and Clothing Contamination
 - a. Skin contaminated with hazardous drug (s) should be washed immediately with soap and water.
- b. Clothing contaminated with hazardous drug (s) will be removed immediately. Launder contaminated clothing separately from other wash. Contaminated hospital clothing and laundry should be placed in a plastic bag prior top being placed in a laundry bag. Personal clothing should be laundered separately at home.
- c. If hazardous drug (s) splashes into the eyes, flush with large amounts of water. Emergency medical attention must follow any eye exposure.

APPENDIX L

AUTOMATIC STOP ORDERS

- L-1. Inpatient automatic stop orders are in effect for the classes of medications listed below unless the clinical practitioner either orders a finite number of doses or specifies an exact period of time. Orders indicating such things as "for the duration of hospital stay" are not valid for these medications.
- L-2. All medication orders are cancelled whenever a patient undergoes surgery.
- L-3. The following medication orders are cancelled after a single dose: Potassium bolus.
- L-4. The following medication orders are cancelled after 24 hours (one day): Hyperalimentation.
- L-5. The following medication orders are cancelled after 72 hours (3 days): Potassium drips.
- L-6. The following medication orders are cancelled after 120 hours (5 days):
 - a. Oral anticoagulants.
 - b. Heparin drips.
 - c. Ketorolac (Toradol©): all forms.

APPENDIX M

IN-LINE FILTRATION OF PARENTERAL PRODUCTS

- M-1. Some Parenteral medications should be administered through an in-line filter. Most, but not all, intravenous drugs can freely pass through such filters. Depending upon the pore size and type of filter used, certain drugs should not be filtered. The Inpatient Pharmacy Service provides 1.2 micron in-line filters when filtering is suggested.
- M-2. The following solutions SHOULD be filtered through a 1.2 micron filter:
 - a. TPN to prevent infusion of precipitated electrolytes and Candida.
 - b. Mannitol to prevent infusion of precipitated crystals.
 - c. Phenytoin to prevent infusion of precipitated crystals.
- M-3. The following solutions should NOT be filtered through a 0.22 micron filter:
 - a. Cellular blood products (e.g. albumin, Plasmanate©, etc.).
 - b. Emulsions (lipids, propofol).
 - c. Amphotericin B.
- d. Drugs with a concentration of <5mg/ml and where the total dose is <5mg over 24 hours due to significant adsorptions (e.g. insulin, mithramycin, vincristine, actinomycin D and cisplatin).
- M-4. The following solutions should NOT be filtered through a 1.2 micron filter:
 - a. Cellular blood products (e.g. albumin, Plasmanate©, etc.).
- M-5. Questions regarding the use of filters should be referred to the Inpatient Pharmacy Service.

References:

- 1. Butler ID, Munson JM, Deluca PP. Effect of inline filtration on the potency of low-dose drugs. Am J Hosp Phar. 1980;37-935-41.
- 2. McKinnon BT, Avis KE, Membrane filtration of pharmaceutical solutions. Am J Hosp Phar. 1993;50:1921-36.
- 3. Rusmin S, Welton S, Deluca P, et al. Effect of inline filtration on the potency of drugs administered intravenously. Am J Hops Phar. 1977;34:1071-74.
- 4. Pall Set Saver Extended Life, 0.2 micron filter package insert.

GLOSSARY

Abbreviations:

ΔR	Army Regulation
BDO	Bulk Drug Order
CIS	
DA Fm	
DAK	
	Deputy Commander for Clinical Services
	Drug Enforcement Agency
	Department of Nursing
	In Accordance With
IV's	Intravenous (fluid)
IVP	Intravenous Push
JCAHOJoin	t Commission on the Accreditation of Healthcare Organizations
	Licensed Practical Nurse
MDB	Materiel Distribution Branch
MEDCOM	US Army Medical Command
	Medical Treatment Facility
	Pharmacoeconomics Center
	As Needed
	Pharmacy and Therapeutics Committee
RN	
	Standard Form (US Government)
SPP	
SSAN	Social Security Administration Number
	U.S. Navy
WRAMC	Walter Reed Army Medical Center

Terms:

91W/M6 – The U.S. Army's military counter-part to a civilian LPN.

DEA Schedule – A system of classification (Schedule I through V, or C-I through C-V) which is used by the Drug Enforcement Agency to indicate the relative abuse potential.

OmniCell® - A proprietary point-of-use medication distribution system.

The proponent agency for this publication is the Walter Reed Army Medical Center, Department of Pharmacy. Users are invited to send suggestions and comments on a DA Form 2028 (Recommended Changes to Publications and Blank Forms) to Commander, Walter Reed Army Medical Center, ATTN: MCHL-SCC, 6900 Georgia Avenue, NW, Washington, DC 20307-5001.

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